Web Engineering (2)

Course Name: Web Engineering (2)
Course Code: NWE405
Credit hours: 3
Knowledge Domain: Networks and Web Engineering..
Prerequisite(s): Web Engineering (1) (NWE304)

Learning Objectives

Upon completion of this course, the student will be able to:
1. Grasp the basic concepts of Web server design.
2. Design Web-enabled databases and their access through JDBC& other methods.
3. Acquire web video concepts and VRML.

Learning Outcomes:

1. Grasping Web server design concepts, Web databases and their access.
2. Acquaintance with the use of VRML and some applications.

Overview and Syllabus

Basic considerations of Web server development. Database applications on the Web. Managing multi-user Web databases. Accessing database servers. Java database programming. Web video. Virtual Reality Markup language (VRML).

Course Outline

	Topic
1	**Module 1: Basic consideration of Web Server development**
	Lesson 1: Introduction to web server
	Lesson 2: Web Server Architecture
	Lesson 3: Introduction to Server Security
2	**Module 2: Database web Application**
	Lesson 1: Overview of web-based database application
	Lesson 2: Database and SQL
	Lesson 3: Scripting Language (PHP or JSP)
3	**Module 3: Managing Multi-User web Database**
	Lesson 1: Concurrency control
	Lesson 2: Database recovery
	Lesson 3: Database security
	Lesson 4: Database administration

4	**Module 4: Accessing Database Servers** **Lesson 1:** Web server data environment **Lesson 2:** Connecting to a Database via ODBC **Lesson 3:** Object Linking and Embedding **Lesson 4:** Active Data Object
5	**Module 5: Java Database Programing** **Lesson 1:** JDBC and fundamentals **Lesson 2:** Working with connections and statments **Lesson 3:** The metadata interface **Lesson 4:** Building the database browser client
6	**Module 6: Web Video** **Lesson 1:** Web video tools **Lesson 2:** General implementation and considerations **Lesson 3:** Video conferencing techniques and implementations **Lesson 4:** Examples in distance learning
7	**Module 7: Virtual Reality Markup Language** **Lesson 1:** Virtual Reality **Lesson 2:** The Virtual Reality Modeling Language **Lesson 3:** Setting up the VRML Viewers and editors **Lesson 4:** VRML Specifications